## ABSTRACT

A re-configurable wavelength selective device, also referred to as a re-configurable wavelength drop device, has an input fiber, where a signal comprising multiple wavelengths $\lambda_1,\lambda_2...\lambda_n$ is brought into the device, and two output fibers, one for a selected wavelength $\lambda_i$ and the other for the remaining wavelengths $\lambda_1,\lambda_2...\lambda_{i-1},\lambda_{i+1}...\lambda_n$ which pass through the device unaffected. The wavelength $\lambda_i$ is selected by a control signal, for example an electrical signal, applied to the device. The re-configurable wavelength drop device also enables selecting among a large number of wavelength channels within a relatively short switching time. In a preferred embodiment, the re-configurable wavelength drop device enables selecting among in excess of a thousand wavelength channels in a switching time of less than or equal to 10 msec.